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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/801,751	03/09/2001	Jean-Pierre Robin	017751-021	5968

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Norman H. Stepno, Esquire
BURNS, DOANE, SWECKER & MATHIS, L.L.P.
P.O. Box 1404
Alexandria, VA 22313-1404

EXAMINER	
GOLDBERG, JEROME D	
ART UNIT	PAPER NUMBER
1614	

DATE MAILED: 04/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/801,751	Applicant(s) ROBIN ET AL.	
	Examiner Jerome D Goldberg	Art Unit 1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 March 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2 and 4-27* is/are pending in the application.

4a) Of the above claim(s) *7,8,11,18,22 and 23* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-6,9,10,12-17,19-21 and 24-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

The restriction requirement is herein in modified in that claim 2 will be examined in full.

The two compounds harringtonine (n=2) and homoharringtonine (n=3) will be examined. Moreover, claims 7 and 11 drawn to on addition agent, which can be a nucleoside, will be examined with the Group II invention.

Claims 7, 8, 11, 18, 22 and 23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 9.

Applicants' remarks are noted but the Group II invention with the compounds of Group I and a nucleoside will support a separate patent for the reasons fully set forth in Paper No. 7. This restriction requirement is deemed proper and made Final.

Claims 1, 2, 4-6, 9, 10, 12-17, 19-21 and 24-27 are being examined as they read on the harringtonine and homoharringtonine compounds for treating cancer.

Claims 1, 2, 4-6, 9, 10, 15-17, 19, 20, 25 and 26 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the specific cancers disclosed, does not reasonably provide enablement for the term "cancer". The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. The term "cancer" in claim 1, 2, 4-6, 9, 10, 15-17, 19, 20, 25 and 26 lacks clear examploy support in the specification as filed. The Chen et al. reference of record states that "both I and II were effective against Ehrlich ascites tumor

and sarcoma" (the I and II are true two compounds being acted upon). The Witte et al reference of record states that these "agents have no activity in the treatment of advanced colorectal carcinoma" (the are agent is homoharringtonine).

The cancer therapy art remains highly unpredictable, and no examples exist for efficacy of a single compounds against cancers generally. Therefore, based on the unpredictable nature of the invention and state of the prior art, lack of guidance and working examples, and extreme breadth of the claims, one skilled in this art could not use the entire scope of the claimed invention without undue experimentation. Changing the term "cancer" to the specific cancers shown to be inhibited by the two agents would overcome this rejection.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 4-6, 9, 10, 12-17, 19-21 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al reference or the Takeda et al. reference.

The Li et al. Reference teaches "injection (i.e) of herringtonine (I)... (26mg/kg) and homoharringtonine (II).. (1mg/'kg) into L1210 leukemia nice both produced apoptosis ... in leukemia cells" (HB, lines 1-4). Takeda et al. reference teaches that the " HA and HO had significant activates against P388 leukemia, L1210 leukemia ... by i.p. injection" (AB, lines 4-6) (The HA and HO are the elected compounds). The reference fail to teach the subcutaneous mode of administration nor the salt form of the active agents.

Therefore, one skilled in this art would find ample motivation from the prior art supra to employ the elected compounds against leukemia by any injection mode with a reasonable expectation that said compounds would be effective to combat leukemia. Clearly a showing over the prior art i.p. mode of injection vs. applicants' subcutaneous mode of injection is needed. With regard to the salts form of the compounds, a showing over the prior art non-salt form is also needed.

Claims 2, 4, 6, 15-17 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Should not the term "n= 1 or 2" in claims 2 be "n= 2 or 3"? The formula in claims 4, 6, 15-17 and 27 fail to recite a value for "n". Correction is required.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermone Goldberg whose telephone number is (703)

308-4606. The examiner can normally be reached on Monday to Thursday from 9:00 AM to 3 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marianne ~~Gintins~~ Deinel, can be reached on (703) 308-4725. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Goldberg/LR

April 5, 2002

JEROME D. GOLDBERG
PRIMARY EXAMINER